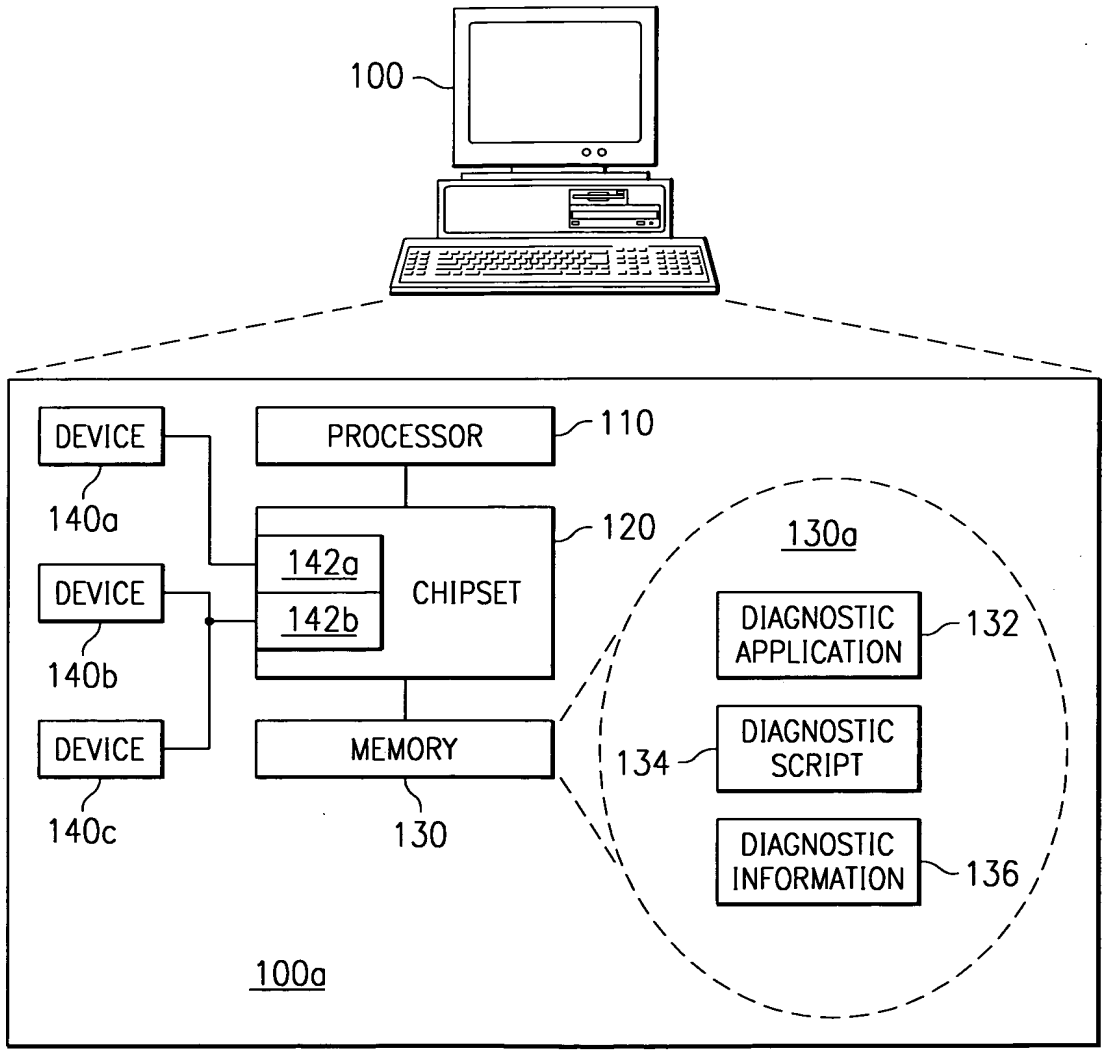

Fig. 1

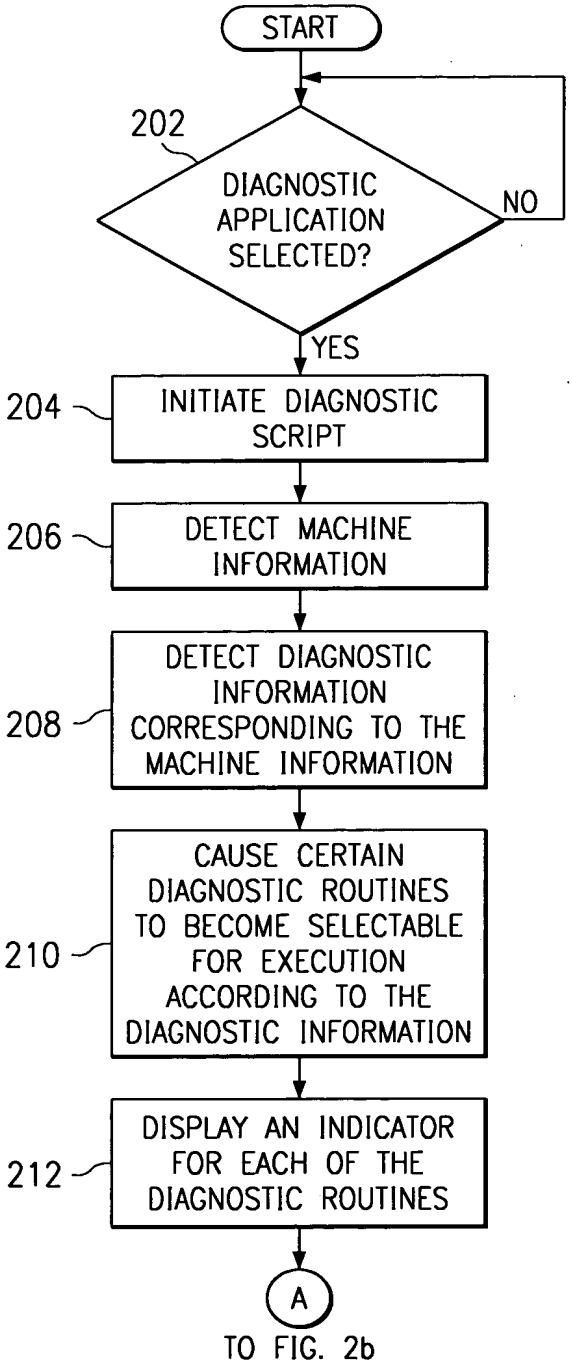
START
202
DIAGNOSTIC APPLICATION SELECTED?
NO
YES
204
INITIATE DIAGNOSTIC SCRIPT
206
DETECT MACHINE INFORMATION
208
DETECT DIAGNOSTIC INFORMATION CORRESPONDING TO THE MACHINE INFORMATION
210
CAUSE CERTAIN DIAGNOSTIC ROUTINES TO BECOME SELECTABLE FOR EXECUTION ACCORDING TO THE DIAGNOSTIC INFORMATION
212
DISPLAY AN INDICATOR FOR EACH OF THE DIAGNOSTIC ROUTINES
A
TO FIG. 2b

Fig. 2a

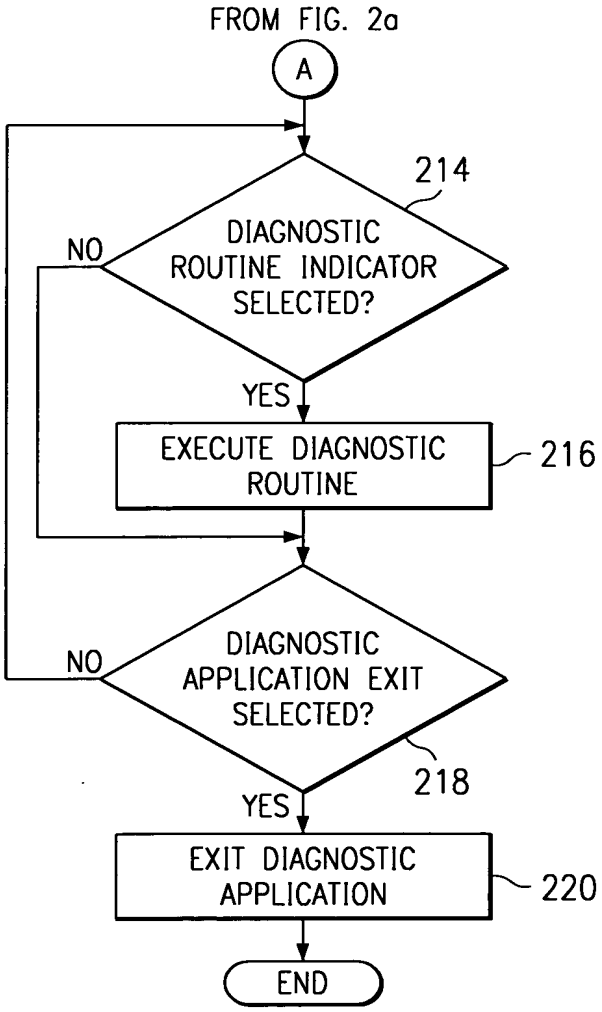
FROM FIG. 2a
A
214
DIAGNOSTIC ROUTINE INDICATOR SELECTED?
NO
YES
EXECUTE DIAGNOSTIC ROUTINE
216
DIAGNOSTIC APPLICATION EXIT SELECTED?
NO
218
YES
EXIT DIAGNOSTIC APPLICATION
220
END

Fig. 2b

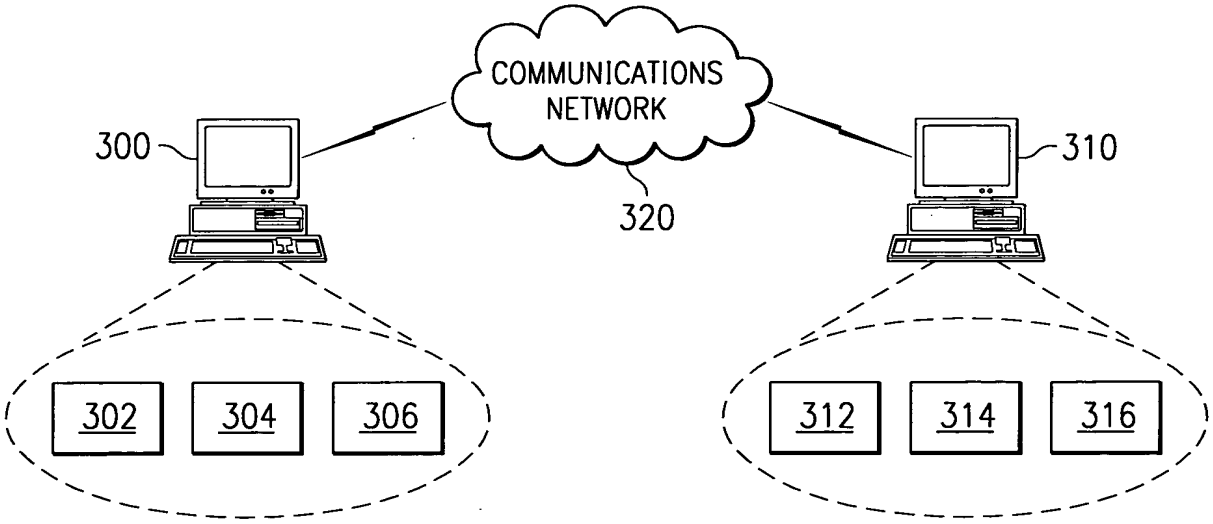
COMMUNICATIONS NETWORK
300
310
320
302
304
306
312
314
316

Fig. 3a

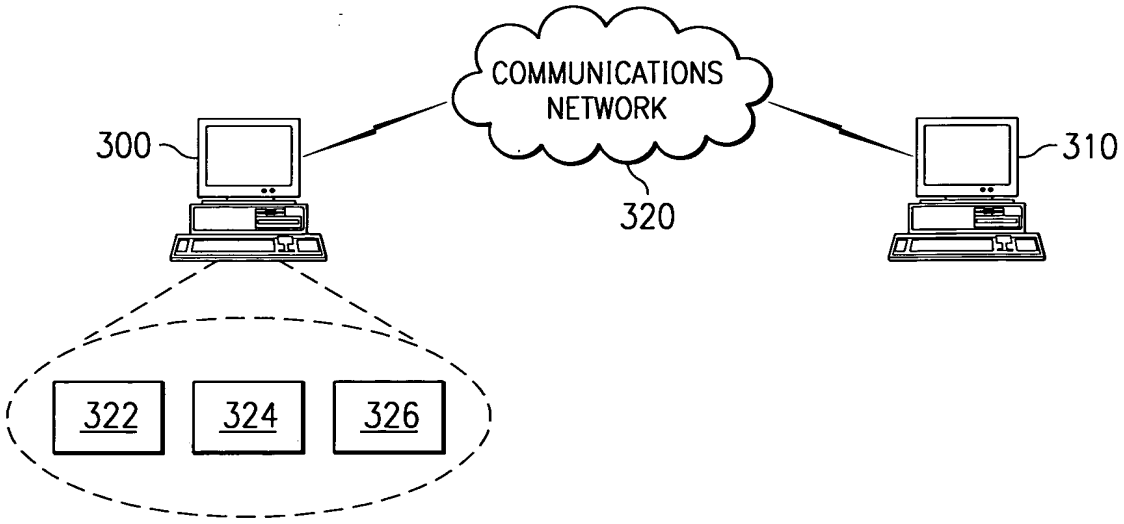
COMMUNICATIONS NETWORK
300
310
320
322
324
326

Fig. 3b

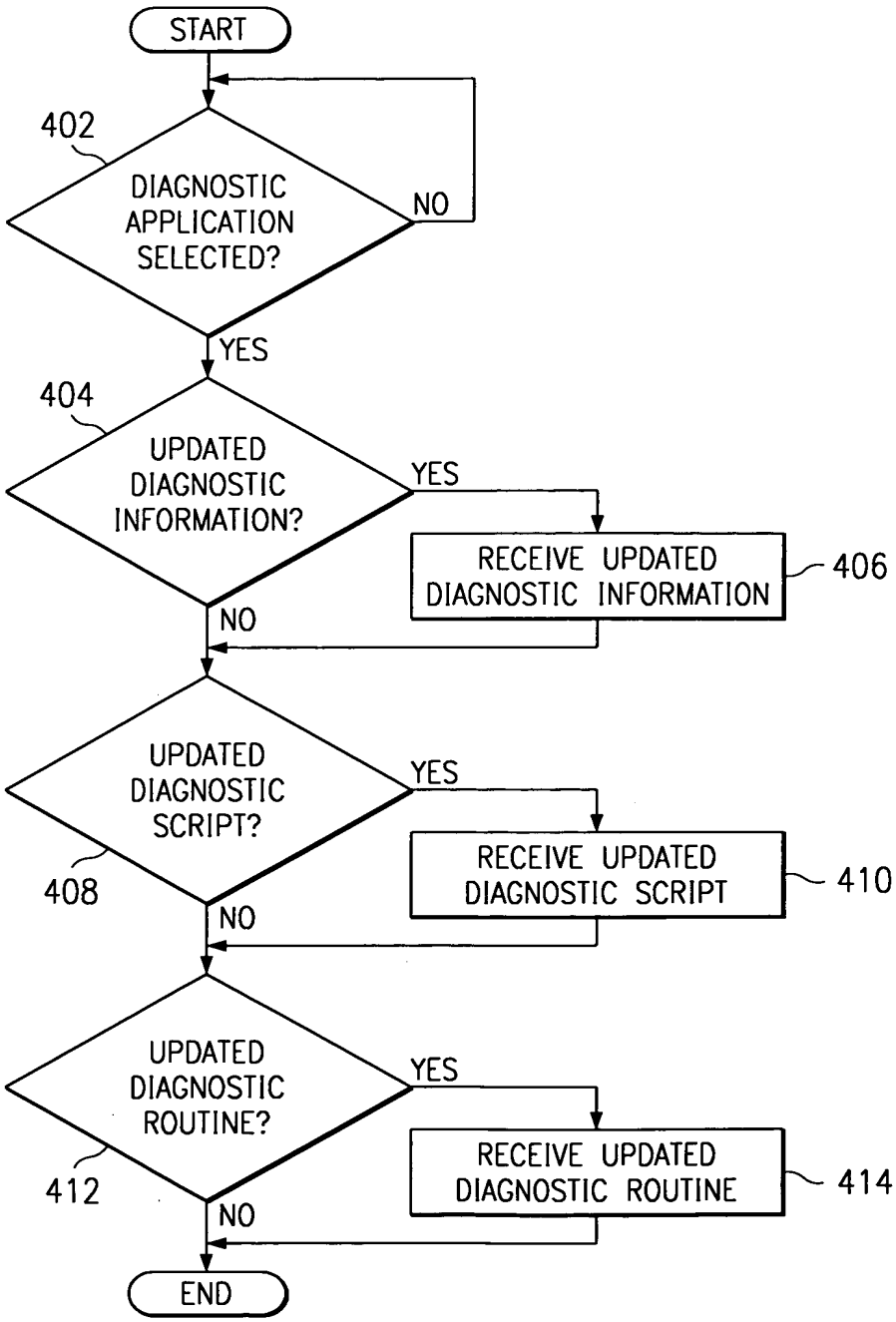
START
402
DIAGNOSTIC APPLICATION SELECTED?
NO
YES
404
UPDATED DIAGNOSTIC INFORMATION?
YES
RECEIVE UPDATED DIAGNOSTIC INFORMATION
406
NO
UPDATED DIAGNOSTIC SCRIPT?
YES
RECEIVE UPDATED DIAGNOSTIC SCRIPT
410
408
NO
UPDATED DIAGNOSTIC ROUTINE?
YES
RECEIVE UPDATED DIAGNOSTIC ROUTINE
414
412
NO
END

Fig. 4

DIAGCONF.INI File 500

```
[Win9x] ←512
SupportedDiags=AGP|Audio|AVI|CD/DVD-ROM|CMOS|CPU|
Extended SMART Drive|Floppy Drive|Hard Drive|Infrared Port|Joystick|Keyboard|
Microphone|Modem|Monitor|Mouse|Network Adapter|Parallel Port|PCI|PCMCIA|
Printer|SCSI|Serial Port|SMART Drive|Super Disk|System Diagnosis|System Memory|
USB|Video Adapter|Zip Drive                                                    } 510

[WinNT] ←522
SupportedDiags=AGP|Audio|AVI|CD/DVD-ROM|CMOS|CPU|Extended SMART Drive|
Floppy Drive|Hard Drive|Joystick|Keyboard|Microphone|Modem|Monitor|Mouse|
Network Adapter|Parallel Port|Printer|SCSI|Serial Port|SMART Drive|Super Disk|
System Diagnosis|System Memory|Tape Backup|Video Adapter|Zip Drive          } 520

[Win2K] ←532
SupportedDiags=AGP|Audio|AVI|CD/DVD-ROM|CMOS|CPU|Extended SMART Drive|
Floppy Drive|Hard Drive|Joystick|Keyboard|Microphone|Modem|Monitor|Mouse|
Network Adapter|Parallel Port|Printer|SCSI|Serial Port|SMART Drive|Super Disk|
System Diagnosis|System Memory|Tape Backup|Video Adapter|Zip Drive|USB   } 530

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[Hard Drive] ←540
abstract=HardDisk Drive Diagnostic ←542
icon=HardDrive.jpg ←544

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[0xBA] ←550
;Code=Mummy
;Audience=Dimension                                                          } 552
;Computer=Dimension Columbus II
Win9xExclude=AVI|Extended SMART Drive|SMART Drive|Monitor|Infrared Port| ←556
PCMCIA|Tape Backup                                                          } 554
WinNTExclude=AVI|Extended SMART Drive|SMART Drive|Monitor|Infrared Port| ←558
PCMCIA|PCI|USB
Win2KExclude=AVI|Extended SMART Drive|SMART Drive|Monitor|Infrared Port| ←560
PCMCIA|PCI

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.
.
```

Fig. 5

Java Script/Methods/Functions: 600

```
function parseDiagIni (sMachineId)
{
   // *** Get Diagnostic Information File location.                    602
   var sIniFile = getDiagConfFile ();

   // *** Determine OS platform, a Java method is called which in turn calls a
Windows API that returns the OS installed.                             604
   var sOSString = "";
   if (IsWindowsNT ())
        sOSString = "WinNT";
   else if (IsWindows2000 ())
        sOSString = "Win2K";
   else if (IsWindows98 () || IsWindows95 ())
        sOSString = "Win9x";

   // *** Load list of supported diagnostics for the OS platform from the   606
information file.
   var xSupportedDiags = iniApi.GetEntry (sOSString, "SupportedDiags",
sIniFile);
   xSupportedDiags.Print ();
   if (xSupportedDiags.GetReturnCode () != 0) {
        DebugPrint ("No SupportedDiags variable for " + sOSString);
        return;
   }
   sSupportedDiags = xSupportedDiags.GetAttribute ("value");
   DebugPrint ("SupportedDiags = " + sSupportedDiags);
   var aSupportedDiags = parseLine (sSupportedDiags);
```

Fig. 6a

608

```
// *** Load list of unsupported diagnostics from the information file based
on machine and OS platform.
  var xExcludeDiags = iniApi.GetEntry (sMachineId, sOSString + "Exclude",
sIniFile);
      xExcludeDiags.Print ();
  if (xExcludeDiags.GetReturnCode () == 0) {
    DebugPrint("Now entering - excluded diags section - svk");
       sExcludeDiags = xExcludeDiags.GetAttribute ("value");
    DebugPrint("ExcludeDiags = " + sExcludeDiags);
    var aExcludeDiags = parseLine (sExcludeDiags);
    // *** Remove the excluded diagnostics from the supported list.
    for (var i = 0; i < aExcludeDiags.length; i++) {
     for (var j = 0; j < aSupportedDiags.length; j++) {
           if (aExcludeDiags[i] == aSupportedDiags[j]) {
           aSupportedDiags[j] = "";
       }
     }
   }
}
else {
    DebugPrint ("No Exclude list for " + sOSString + "on" + sMachineId);
}
```

610

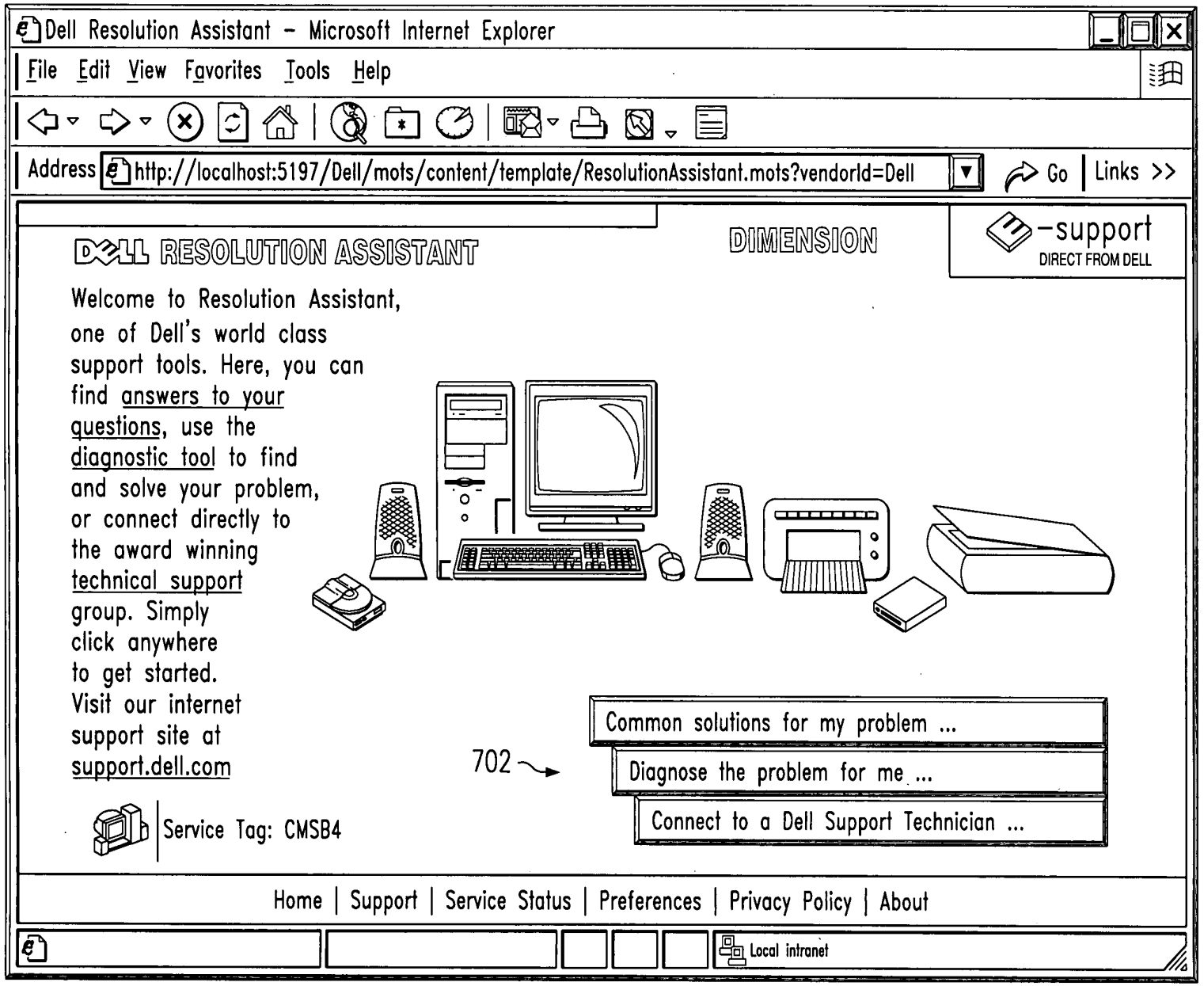
Fig. 6b

```
// *** Build list of supported diagnostic and presentation items from the information file.   612
//      Diagnostic|Abstract|Icon File Name||Diagnostic...
aDiagConfData = new Array ();
aDiagConfData[0] = "abstract";
aDiagConfData[1] = "icon";
var sFinalDiagsSupported = "";
var sSeparator = "|";
var sSuperSeparator = "||";
for (var j = 0; j < aSupportedDiags.length; j++) {
  DebugPrint ("Testing" + aSupportedDiags[j]);
  if ("" != aSupportedDiags[j]) {
      var Abstract = "";
      var Icon = "";
      var xDiagConfDataAbs = iniApi.GetEntry (aSupportedDiags[j],
aDiagConfData[0], sIniFile);
      if (xDiagConfDataAbs.GetReturnCode () == 0)
          Abstract = xDiagConfDataAbs.GetAttribute ("value");
      var xDiagConfDataIcon = iniApi.GetEntry (aSupportedDiags[j],
aDiagConfData[1], sIniFile);
      if (xDiagConfDataIcon.GetReturnCode () == 0)
          Icon = xDiagConfDataIcon.GetAttribute ("value");
      sFinalDiagsSupported = sFinalDiagsSupported + aSupportedDiags[j] +
sSeparator + Abstract + sSeparator + Icon + sSuperSeparator;
  }
}
// *** Set the envinonment global space   614
iapi.SetGlobalArg ("DellSupportedDiags", sFinalDiagsSupported);
}


// *** Load the machine id for the machine under test.   616
s = new java.lang.StringBuffer (200);

// *** Call a Java method that extracts the Machine ID from the SMBIOS table   618
DellAPI.GetMachineID (s);
if (s.toString ().length () > 0 ) {
  // Set the Machine Id in the following format: 0xFF. This is used to look the
system up in DiagConf.ini
  g_sMachineId = "0x" + s.toString ();
}
// *** Create the list of supported diagnostics and their presentation items.   620
parseDiagIni (g_sMachineId);
```

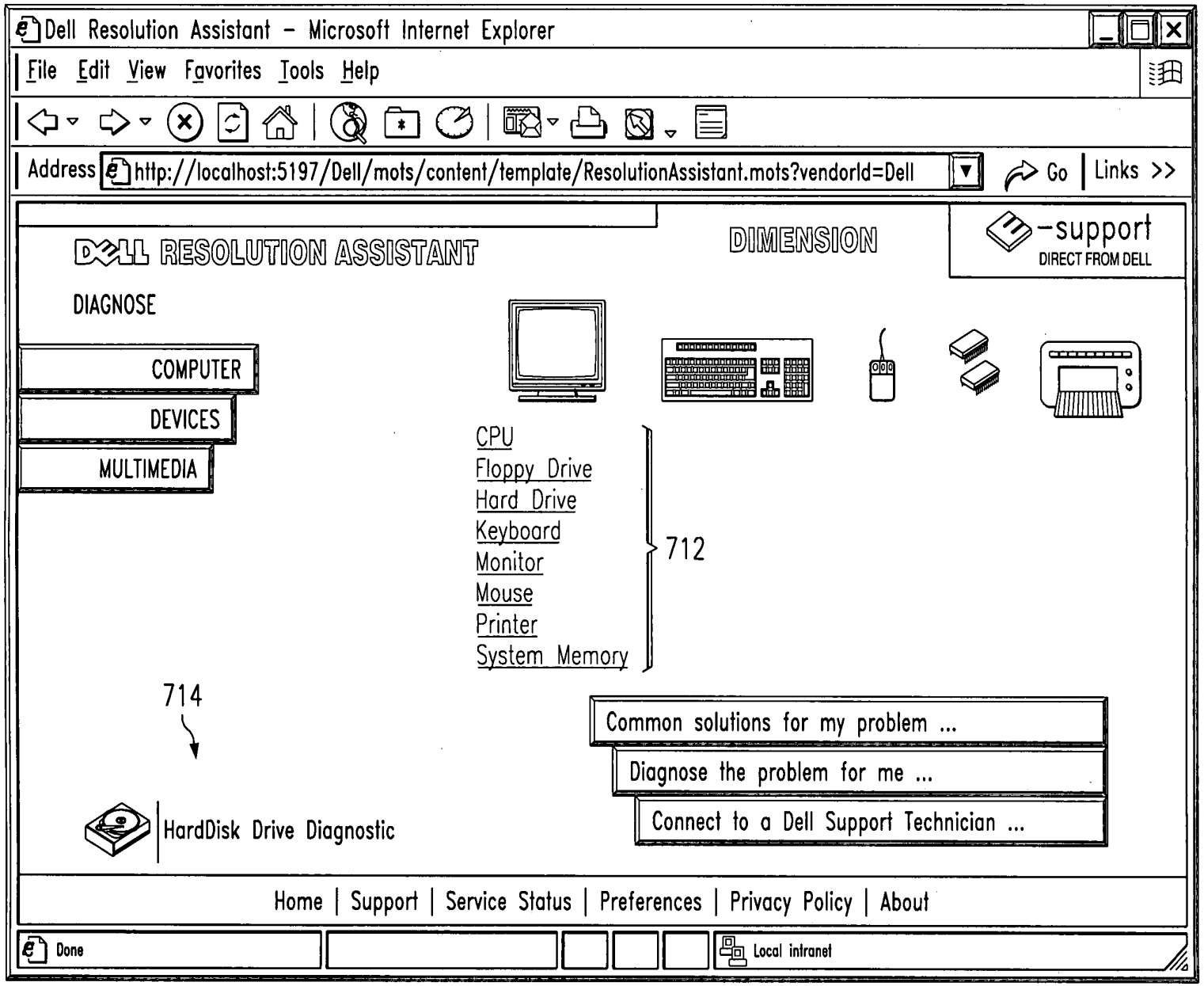
Fig. 6c



700

702

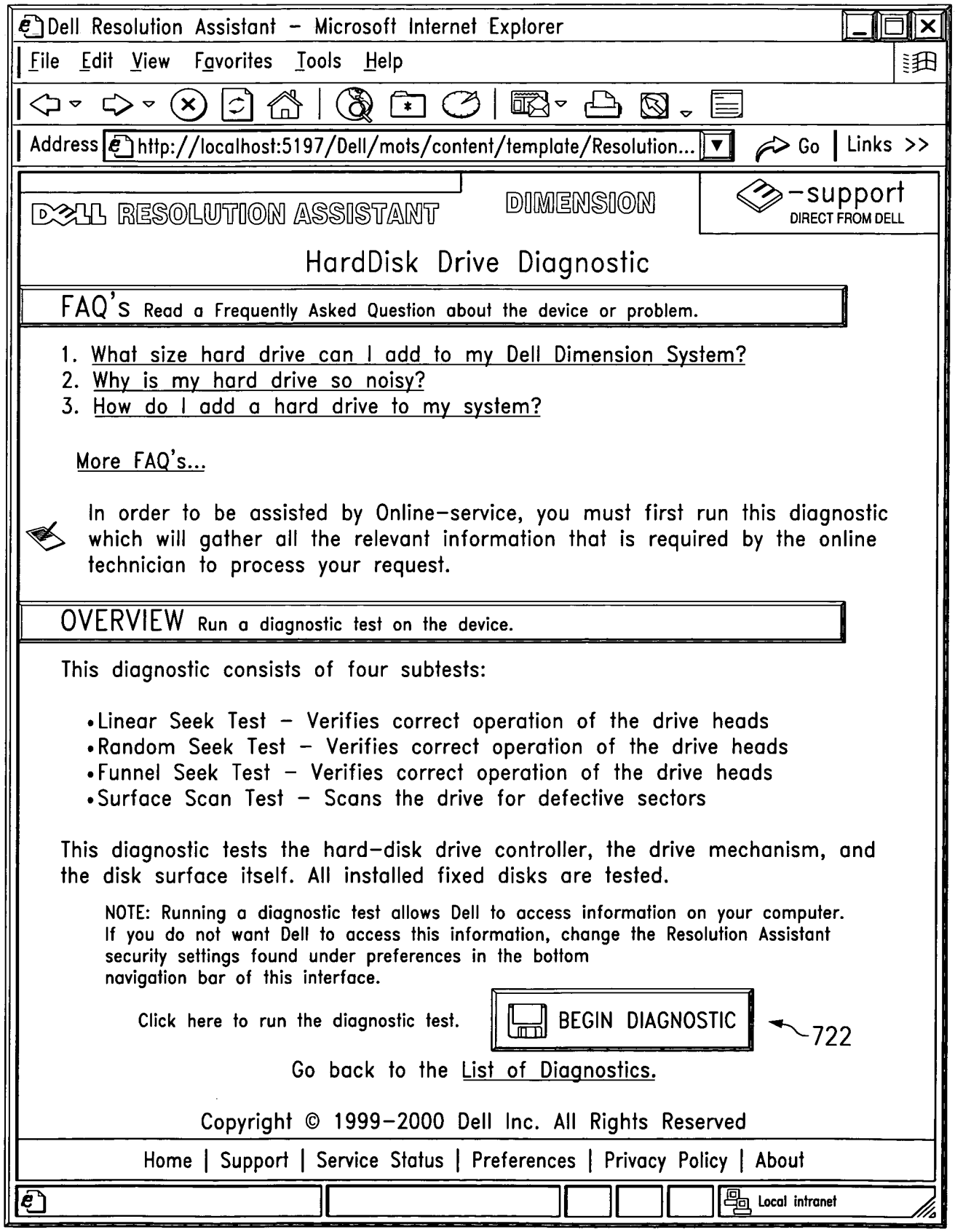
Fig. 7a


Dell Resolution Assistant - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://localhost:5197/Dell/mots/content/template/ResolutionAssistant.mots?vendorId=Dell
Go
Links >>
DELL RESOLUTION ASSISTANT
DIMENSION
-support
DIRECT FROM DELL
DIAGNOSE
COMPUTER
DEVICES
MULTIMEDIA
CPU
Floppy Drive
Hard Drive
Keyboard
Monitor
Mouse
Printer
System Memory
712
714
Common solutions for my problem ...
Diagnose the problem for me ...
Connect to a Dell Support Technician ...
HardDisk Drive Diagnostic
Home | Support | Service Status | Preferences | Privacy Policy | About
Done
Local intranet

710

Fig. 7b

Fig. 7c


720
Dell Resolution Assistant - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://localhost:5197/Dell/mots/content/template/Resolution...
Go
Links >>
DELL RESOLUTION ASSISTANT
DIMENSION
-support
DIRECT FROM DELL
HardDisk Drive Diagnostic
FAQ's Read a Frequently Asked Question about the device or problem.
1. What size hard drive can I add to my Dell Dimension System?
2. Why is my hard drive so noisy?
3. How do I add a hard drive to my system?
More FAQ's...
In order to be assisted by Online-service, you must first run this diagnostic which will gather all the relevant information that is required by the online technician to process your request.
OVERVIEW Run a diagnostic test on the device.
This diagnostic consists of four subtests:
•Linear Seek Test - Verifies correct operation of the drive heads
•Random Seek Test - Verifies correct operation of the drive heads
•Funnel Seek Test - Verifies correct operation of the drive heads
•Surface Scan Test - Scans the drive for defective sectors
This diagnostic tests the hard-disk drive controller, the drive mechanism, and the disk surface itself. All installed fixed disks are tested.
NOTE: Running a diagnostic test allows Dell to access information on your computer. If you do not want Dell to access this information, change the Resolution Assistant security settings found under preferences in the bottom navigation bar of this interface.
Click here to run the diagnostic test.
BEGIN DIAGNOSTIC
722
Go back to the List of Diagnostics.
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Home | Support | Service Status | Preferences | Privacy Policy | About
Local intranet